

### REMARKS

Claims 1, 3-9, 12-15, and 19-23 are now in the application. Claim 1 has been amended to recite "the adhesive composition is substantially incapable of generating any volatile matter in the heating for curing; drying is carried out between (1) and (2); and the drying is carried out such that the conductive material with an adhesive surface formed thereon is heated in a temperature range within which no curing reaction occurs". Basis for this amendment to claim 1 can be found, for instance, in prior claims 2 and 10 and at page 28, lines 17-20 of the specification. In view of this amendment to claim 1, claims 2, 10, 17 and 18 have been cancelled without prejudice or disclaimer. Claim 20 has been amended to depend from claim 3. Newly presented claim 22 finds support at least in claim 5. Newly presented claim 23 finds support at least page 28, lines 23-26. The amendments to the claims and newly presented claims do not introduce any new matter.

Claims 1-10, 12-15 and 17-21 were rejected under 35 USC § 103 (a) as being unpatentable over US Patent 5,676,812 to Kadokura in view of US Patent 6,106,684 to Kawakami et al. The cited references do not render obvious the present invention.

Kadokura and Kawakami et al. fail to disclose that "the drying is carried out between (1) and (2), the drying being carried out such that the conductive material having the adhesive resin layer is heated in a temperature range within which no curing reaction occurs", as now recited in the claims as amended.

Specifically, although Kadokura suggests that post-electrodeposition heating is carried out for the purpose of causing a cross-linking reaction, Kadokura fails to disclose that "the being drying carried out such that the conductive material having the adhesive resin layer is heated in a temperature range within which no curing reaction occurs".

In order for Kadokura to carry out the drying recited in claim 1 of the present application, it is generally necessary to protect, before the drying, a curing agent by using a. blocking agent so as to prevent a reaction of the curing agent (cross-linking agent).

In such case, if the above-mentioned drying is carried out with a general cationic electrodeposition composition, a desorption product (the blocking agent for the curing

agent which blocking agent desorbs during the curing reaction), generated during the curing reaction occurred by heating, is not removed but remains inside the adhesive resin layer. The desorption product causes air bubbles to be generated inside the adhesive resin layer during the curing reaction occurred by heating carried out in (2). This causes a significant reduction in adhesiveness of the adhesive resin layer of a laminate, which is a final product.

Further, for example, during the curing reaction occurred by heating carried out in (2). if the drying is carried out at a high temperature at which the air bubbles generated by the desorption product do not remain inside the adhesive resin layer, the curing reaction for the adhesive resin layer progresses. This likewise results in a significant reduction in the adhesiveness.

Further, Kawakami et al., do not disclose using, as an adhesive, the cationic resin composition recited in claim 1 of the present application. Therefore, persons skilled in the art would not be lead to carry out, on the basis of Kawakami et al., the drying recited in claim 1. The problems addressed by the present invention would not be of concern in Kawakami et al. Persons skilled in the art concerned with problems addressed by the present invention would not be lead to use compositions that are only suggested as being suitable for coatings as are the compositions of Kawakami et al.

In view of this, persons skilled in the art would not arrive at the invention recited in claim 1 on the basis of Kadokura and Kawakami et al.

Furthermore, because the method according to the present invention includes "the drying to be carried out between (1) and (2), the drying being carried out such that the conductive material having the adhesive resin layer is heated in a temperature range within which no curing reaction occurs", it is possible for the method according to the present invention to sufficiently remove volatile matter such as solvent remaining inside the adhesive resin layer, and thereby to improve the uniformity, adhesive strength and electrical insulation of the adhesive, as compared with Kadokura and Kawakami et al., as described above.

In view of this, it is apparent that the invention recited in claim 1 provides an effect which cannot be expected from Kadokura and Kawakami et al. For all of these reasons, the present invention is not obvious.

In addition, the present invention exhibits excellent adhesion between a conductive material and the adhesive resin layer. Please see the paragraph bridging pages 6 and 7 of the specification and the last paragraph on page 31 of the specification.

Concerning obviousness, *Graham V. John Deere*, 383 U.S. 1, 148 U.S.P.Q. 459 (1966) outlines the approach that must be taken when determining whether an invention is obvious. In *Graham*, the Court stated that a patent may not be obtained if the subject matter would have been obvious at the time the invention was made to a person having ordinary skill in the art, but emphasized that nonobviousness must be determined in the light of inquiry, not quality. Approached in this light, §103 permits, when followed realistically, a more practical test of patentability. In accordance with *Graham*, four inquiries must be made in determining whether an invention is obvious:

- (1) The scope and content of the prior art are to be determined.
- (2) The difference between the prior art and the claims at issue are to be ascertained.
- (3) The level of ordinary skill in the pertinent art is resolved.
- (4) Evaluating evidence of secondary considerations. Also see *KSR Int'l Co. v. Teleflex, Inc.*, 127 S.Ct. 1727; 82 USPQ2d 1385 (2007).

In conjunction with interpreting 35 U.S.C. §103 under *Graham V. John Deere*, 383 U.S. 1, 148 U.S.P.Q. 459 (1966) and *KSR Int'l Co. v. Teleflex, Inc.*, 127 S. Ct. 1727 (2007), the initial burden is on the Patent Office to provide some apparent reason or suggestion of the desirability of doing what the inventor did, i.e. the Examiner must establish a *prima facie* case of obviousness. To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention, or the Examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references.

In addition, the prior art reference (or references when combined) must teach or suggest all of the claim limitations. Also please see MPEP 2143.03. However, as discussed above, the cited references fail to teach all of the recitations in the present claims as now presented. For instance, the cited references fail to disclose that "the drying is carried out between (1) and (2), the drying being carried out such that the conductive material having the adhesive resin layer is heated in a temperature range within which no curing reaction occurs"

Moreover, the mere fact that cited art may be modified in the manner suggested in the Office Action does not make this modification obvious, unless the cited art suggests the desirability of the modification or impliedly suggests the claimed invention, or the Examiner has presented a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references. No such suggestion appears in the cited art in this matter nor has a convincing line of reasoning been presented in this case. The Examiner's attention is kindly directed to *KSR Int'l Co. v. Teleflex, Inc.*, *supra*; *In re Dembiczak et al.*, 50 USPQ2d. 1614 (Fed. Cir. 1999), *In re Gordon*, 221 USPQ 1125 (Fed. Cir. 1984), *In re Laskowski*, 10 USPQ2d, 1397 (Fed. Cir. 1989) and *In re Fritch*, 23, USPQ2d. 1780 (Fed. Cir. 1992).

Furthermore, the cited art lacks the necessary direction or incentive to those of ordinary skill in the art to render a rejection under 35 USC 103 sustainable. The cited art fails to provide the degree of predictability of success of achieving the properties attained by the present invention needed to have a rejection under 35 U.S.C. 103 sustained. See *KSR Int'l Co. v. Teleflex, Inc.*, 127 S. Ct. 1727 (2007), *Diversitech Corp. v. Century Steps, Inc.*, 7 USPQ2d 1315 (Fed. Cir. 1988), *In re Mercier*, 187 USPQ 774 (CCPA 1975) and *In re Naylor*, 152 USPQ 106 (CCPA 1966).

Moreover, the properties of the subject matter and improvements which are inherent in the claimed subject matter and disclosed in the specification are to be considered when evaluating the question of obviousness under 35 USC 103. See *KSR Int'l Co. v. Teleflex, supra*, *Gillette Co. v. S.C. Johnson & Son, Inc.*, 16 USPQ2d 1923 (Fed. Cir. 1990), *In re Antonie*, 195 USPQ 6 (CCPA 1977), *In re Estes*, 164 USPQ 519 (CCPA 1970), and *In re Papesch*, 137 USPQ 43 (CCPA 1963).

No property can be ignored in determining patentability and comparing the claimed invention to the prior art. Along these lines, see *In re Papesch*, supra, *In re Burt et al*, 148 USPQ 548 (CCPA 1966), *In re Ward*, 141 USPQ 227 (CCPA 1964), and *In re Cescon*, 177 USPQ 264 (CCPA 1973).

In view of the above, consideration and allowance are respectfully solicited.

In the event the Examiner believes an interview might serve in any way to advance the prosecution of this application, the undersigned is available at the telephone number noted below.

The Office is authorized to charge any necessary fees to Deposit Account No. 22-0185, under Order No. 27604- 00003-US1 from which the undersigned is authorized to draw.

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Respectfully submitted,

By: Burton A. Amernick/

Burton A. Amernick

Registration No.: 24,852

CONNOLLY BOVE LODGE & HUTZ LLP

1875 Eye Street, N.W., Suite 1100

Washington, DC 20006

(202) 331-7111

(202) 293-6229 (Fax)

Attorney for Assignee